

CLAIMS

1. A process for producing a low-friction fluororubber crosslinked product, comprising:

5 preliminarily polyol crosslinking a polyol-crosslinkable fluororubber composition according to need, the composition comprising a polyol-crosslinkable fluororubber in combination with a crosslinking accelerator, a polyol crosslinking agent, calcium hydroxide and optionally
10 magnesium oxide, wherein the crosslinking accelerator has a weight ratio (R) to the polyol crosslinking agent (crosslinking accelerator/polyol crosslinking agent) in the range of 0.9 to 5; and

heat treating the fluororubber composition at a
15 temperature in the range of 150 to 300°C for 0.1 to 48 hours to produce a low-friction fluororubber crosslinked product having a surface friction coefficient of less than 1.

2. The process according to claim 1, wherein the
20 weight ratio R is in the range of 0.9 to 3 and the heat treatment is performed at a temperature in the range of 200 to 300°C.

3. The process according to claim 1 or 2, wherein the weight ratio R is in the range of 0.9 to 2 and the heat treatment

is performed at a temperature in the range of 240 to 300°C for 10 to 48 hours.

4. The process according to any one of claims 1 to 3, wherein the crosslinking accelerator is an organic quaternary phosphonium salt and the polyol crosslinking agent is a bisphenol.

5. The process according to any one of claims 1 to 4, wherein the fluororubber composition contains the crosslinking accelerator and the polyol crosslinking agent in amounts of 2.1 to 20 parts by weight and 0.4 to 20 parts by weight, respectively, per 100 parts by weight of the polyol-crosslinkable fluororubber.

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6. The process according to any one of claims 1 to 5, wherein the fluororubber composition contains calcium hydroxide having a specific surface area of less than 20 m²/g in an amount of 0.5 to 10 parts by weight per 100 parts by weight of the polyol-crosslinkable fluororubber.

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7. The process according to any one of claims 1 to 6, wherein the fluororubber composition contains the magnesium oxide in an amount of not more than 3.0 parts by weight per

100 parts by weight of the polyol-crosslinkable fluororubber.

8 The process according to any one of claims 1 to
7, wherein the polyol-crosslinkable fluororubber composition
5 contains polytetrafluoroethylene (PTFE) in an amount of 5 to
200 parts by weight per 100 parts by weight of the
polyol-crosslinkable fluororubber.

9. The process according to any one of claims 1 to
10 8, wherein the polyol-crosslinkable fluororubber composition
is polyol-crosslinked using a compression mold whose inner
peripheral surface is unleveled to give a crosslinked product
having an uneven surface with an average depth of 0.5 to 200
μm, and the crosslinked product is subjected to the heat
15 treatment.

10. A fluororubber composition capable of giving a
crosslinked product by heat treatment that is used as a stopper
in hard disk drive, the composition comprising a
20 polyol-crosslinkable fluororubber, a polyol crosslinking
agent and a crosslinking accelerator, wherein the polyol
crosslinking agent is contained in an amount of 0.4 to 20 parts
by weight per 100 parts by weight of the polyol-crosslinkable
fluororubber, and wherein the weight ratio R of the

crosslinking accelerator to the polyol crosslinking agent (crosslinking accelerator/polyol crosslinking agent) is in the range of 0.9 to 2.0.

5 11. An impact-absorbing stopper obtained by the process for producing a low-friction fluororubber crosslinked product according to any one of claims 1 to 9.

10 12. A stopper in hard disk drive obtained by the process for producing a low-friction fluororubber crosslinked product according to any one of claims 1 to 9.

15 13. The stopper in hard disk drive according to claim 12, wherein the stopper when used as a magnet holder-type stopper has a change of holding torque of not more than 14%.